

**Amendments to the Claims:**

This listing of claims will replace all prior versions and listings of claims in the application:

**Listing of the Claims:**

1. - 5. Canceled

**6. (Canceled)**

7. (Currently Amended) The method of claim 13, wherein providing a current position of the cam comprises further comprising capturing a position of the cam with a sensor that is coupled to the positional controller in order to accelerate the rotating speed of the cam approximately midway through the compression stroke.

8. -10. Canceled

**11. (Canceled)**

12. (Currently Amended) The method of claim [[11]]13, wherein providing a current position of the cam comprises further comprising calculating a position of the cam with a signal from [[the]] an integral rotor position sensor of the motor in order to accelerate the rotating speed of the cam approximately midway through the compression stroke.

13. (Currently Amended) A method for controlling a metering cycle of a pump, the pump including a diaphragm coupled to a ram, the ram being moved by a cam, which is rotated by a shaft of an electric motor, in order to displace the diaphragm in a first direction, for a compression stroke of the metering cycle, and then in a second direction for an aspiration stroke of the metering cycle, the method comprising:

providing input of a required quantity of a metered medium to a positional controller that is coupled to a controller of the electric motor, the required quantity being that to be delivered during the compression stroke of the metering cycle;  
providing input of a current position of the rotating cam to the positional controller;  
calculating a currently required rotating speed for the motor based upon the input of the required quantity of the metered medium and the current position of the rotating cam, only if the current position of the rotating cam corresponds to the compression stroke of the metering cycle, the calculating being carried out by the positional controller;  
transmitting, from the positional controller to the controller of the motor, the calculated currently required rotating speed of the motor, the motor being an EC motor; and  
accelerating a adjusting a rotating field inside the motor to reach the calculated currently required rotating speed, the adjusting being carried out by the controller of the motor during of the cam from a minimum speed to a maximum speed approximately midway through the compression stroke of the metering cycle; and  
maintaining the maximum rotating speed of the cam during an entirety of the aspiration stroke of the metering cycle.

14. (Canceled)